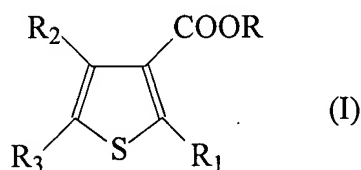




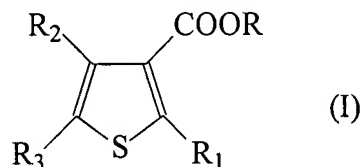
## AMENDMENTS TO THE CLAIMS

1. (previously presented) A solid catalyst component for the polymerization of olefins comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



- wherein R is a branched alkyl group,  $R_1$ ,  $R_2$  and  $R_3$ , same or different, are hydrogen, halogen,  $R^4$ ,  $OR^4$ ,  $COOR^4$ ,  $SR^4$ ,  $NR^4_2$  or  $PR^4_2$ , wherein  $R^4$  is a linear or branched  $C_1$ - $C_{20}$  alkyl,  $C_2$ - $C_{20}$  alkenyl,  $C_3$ - $C_{20}$  cycloalkyl,  $C_6$ - $C_{20}$  aryl,  $C_7$ - $C_{20}$  alkylaryl or  $C_7$ - $C_{20}$  arylalkyl group, optionally containing at least one heteroatom, and at least two of said  $R_1$ - $R_3$  groups can also be joined to form a cycle, with the proviso that at least one of  $R_1$  and  $R_2$  is  $COO^-$  i-octyl and R is i-octyl, at least one of  $R_1$  and  $R_3$  are different from hydrogen.
2. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R is a primary branched alkyl having from 4 to 15 carbon atoms.
  3. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I),  $R_2$  is a  $COOR$  group.
  4. (previously presented) The catalyst component according to claim 3 in which at least one of  $R_1$  and  $R_3$  is a  $C_1$ - $C_{20}$  alkyl group.
  5. (previously presented) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I),  $R_1$  is a  $COOR$  group.
  6. (previously presented) The catalyst component according to claim 5 in which one of  $R_2$  and  $R_3$  of formula (I) are different from hydrogen.
  7. (original) The catalyst component of claim 1 comprising a titanium compound having at least a Ti-halogen bond and the thiophene derivatives of formula (I) supported on a Mg halide in active form.
  8. (previously presented) A catalyst for the polymerization of olefins comprising the product of the reaction between:

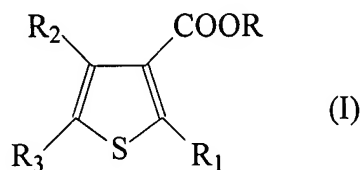
- a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group,  $R_1$ ,  $R_2$  and  $R_3$ , same or different, are hydrogen, halogen,  $R^4$ ,  $OR^4$ ,  $COOR^4$ ,  $SR^4$ ,  $NR^4_2$  or  $PR^4_2$ , wherein  $R^4$  is a linear or branched  $C_1$ - $C_{20}$  alkyl,  $C_2$ - $C_{20}$  alkenyl,  $C_3$ - $C_{20}$  cycloalkyl,  $C_6$ - $C_{20}$  aryl,  $C_7$ - $C_{20}$  alkylaryl or  $C_7$ - $C_{20}$  arylalkyl group, optionally containing at least one heteroatom, and at least two of said  $R_1$ - $R_3$  groups can also be joined to form a cycle, with the proviso that at least one of  $R_1$  and  $R_2$  is  $COOR^4$  and that when  $R_2$  is  $COO$ -i-octyl and R is i-octyl, at least one of  $R_1$  and  $R_3$  are different from hydrogen;

- an alkylaluminum compound; and optionally,  
 - at least one electron-donor compound (external donor).

9. (previously presented) The catalyst according to claim 8 in which the alkylaluminum compound is a trialkyl aluminum compound.
10. (previously presented) A process comprising (co)polymerizing olefins, the (co)polymerization being carried out in the presence of a catalyst comprising the product of the reaction between:
  - a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group,  $R_1$ ,  $R_2$  and  $R_3$ , same or different, are hydrogen, halogen,  $R^4$ ,  $OR^4$ ,  $COOR^4$ ,  $SR^4$ ,  $NR^4_2$  or  $PR^4_2$ , wherein  $R^4$  is a linear or branched  $C_1$ - $C_{20}$  alkyl,  $C_2$ - $C_{20}$  alkenyl,  $C_3$ - $C_{20}$  cycloalkyl,  $C_6$ - $C_{20}$  aryl,  $C_7$ - $C_{20}$  alkylaryl or  $C_7$ - $C_{20}$  arylalkyl group, optionally containing at least one heteroatom, and at least two of said  $R_1$ - $R_3$  groups can also be joined to

form a cycle, with the proviso that at least one of  $R_1$  and  $R_2$  is  $\text{COOR}^4$  and that when  $R_2$  is  $\text{COO-i-octyl}$  and  $R$  is  $\text{i-octyl}$ , at least one of  $R_1$  and  $R_3$  are different from hydrogen;

- an alkylaluminum compound; and optionally,
- at least one electron-donor compound (external donor).